
MASPAR (TM)

Release 2.1D John F. Collins, Biocomputing Research Unit.
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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Tue Jan 21 18:51:59 1997; MasPar time 15.79 Seconds
635.334 Million cell updates/sec

Tabular output not generated.

Title: >US-08-469-637-2
Description: (1-390) from US08469637.pep (1 of 2)
Perfect Score: 2927
Sequence: 1 MNKLLCCALVFLDISIKWTT.....VPSQLHNVQIVSEVIFRNDR 390

Scoring table: PAM 150
Gap 11

Searched: 82182 seqs, 25727515 residues

Post-processing: Minimum Match 0%
Listing first 45 summaries

Database: pir48
1:ann1 2:ann2 3:ann3 4:unann1 5:unann2 6:unann3 7:unann4
8:unann5 9:unann6 10:unann7 11:unann8 12:unann9 13:unenc
14:unrev

Statistics: Mean 45.478; Variance 99.028; scale 0.459

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result	No.	Score	% Match	Query Length	DB ID	Description	Pred. No.
1	398	13.6	461	5	A35356	tumor necrosis facto	2.13e-48
2	375	12.8	474	5	B38634	tumor necrosis facto	2.54e-44
3	303	10.4	277	11	A60771	B-cell activation pr	8.65e-32

4	294	10.0	289	12	A46515	B cell-associated su	2.98e-30
5	294	10.0	305	12	A46476	CD40 - mouse	2.98e-30
6	269	9.2	326	2	GQVZML	T2 protein - myxoma	5.00e-26
7	260	8.9	325	6	B43692	T2 protein - rabbit	1.60e-24
8	233	8.0	349	6	S46888	gene B28R protein (C	4.48e-20
9	233	8.0	349	6	D36858	G4R protein - variol	4.48e-20
10	230	7.9	138	14	S32385	gene G4R protein - v	1.38e-19
11	221	7.6	454	12	S16677	tumor necrosis facto	3.92e-18
12	221	7.6	454	2	GQMST1	tumor necrosis facto	3.92e-18
13	221	7.6	454	12	S19021	tumor necrosis facto	3.92e-18
14	220	7.5	461	2	GQRTT1	tumor necrosis facto	5.68e-18
15	215	7.3	416	5	JN0006	nerve growth factor	3.59e-17
16	213	7.3	427	2	GQHUN	nerve growth factor	7.49e-17
17	207	7.1	425	5	A26431	nerve growth factor	6.72e-16
18	186	6.4	461	12	JC4302	tumor necrosis facto	1.27e-12
19	178	6.1	595	11	A42086	nerve growth factor	2.12e-11
20	172	5.9	455	2	GQHUT1	tumor necrosis facto	1.70e-10
21	162	5.5	260	2	A46517	CD27 antigen precurs	5.22e-09
22	157	5.4	161	5	JC2404	tumor necrosis facto	2.81e-08
23	159	5.4	256	12	B32393	4-1BB protein precur	1.44e-08
24	154	5.3	324	12	JC2395	Fas antigen - rat	7.65e-08
25	146	5.0	271	12	S12783	OX40 antigen precurs	1.07e-06
26	144	4.9	272	14	S34377	Ox40 protein - mouse	2.04e-06
27	141	4.8	255	11	JT0752	lymphocyte activatio	5.37e-06
28	140	4.8	335	11	A38142	APO-1 antigen, Fas a	7.40e-06
29	137	4.7	327	12	A46484	apoptosis-mediating	1.92e-05
30	134	4.6	250	2	A49053	CD27 antigen precurs	4.96e-05
31	134	4.6	335	11	A40036	apoptosis-mediating	4.96e-05
32	124	4.2	103	6	B38550	SalF19R 12K protein	1.09e-03
33	124	4.2	103	6	JQ1791	SalF16R protein - va	1.09e-03
34	124	4.2	103	6	A42523	A53R protein - vacci	1.09e-03
35	115	3.9	360	10	S48365	hypothetical protein	1.58e-02
36	105	3.6	2813	3	VWHU	von Willebrand facto	2.69e-01
37	103	3.5	344	9	S61037	hypothetical protein	4.66e-01
38	102	3.5	3084	2	MMMSA	laminin chain A prec	6.11e-01
39	100	3.4	132	11	S57566	Fas/Apo-1/CD95 prote	1.05e+00
40	100	3.4	149	11	S58662	Fas-Delta-(4,7) prot	1.05e+00
41	100	3.4	1153	11	B35536	desmoplakin II - hum	1.05e+00
42	100	3.4	1752	11	A35536	desmoplakin I - huma	1.05e+00
43	98	3.3	494	10	S59674	Prp31 protein - yeas	1.78e+00
44	98	3.3	1947	2	S05697	myosin heavy chain C	1.78e+00
45	97	3.3	4092	9	S38128	dynein heavy chain -	2.31e+00

ALIGNMENTS

```

RESULT      1
ENTRY       A35356      #type complete
TITLE       tumor necrosis factor receptor type 2 precursor - human
ALTERNATE_NAMES 75K tumor necrosis factor receptor
ORGANISM    #formal_name Homo sapiens #common_name man
DATE        14-Sep-1990 #sequence_revision 14-Sep-1990 #text_change
              01-Mar-1996
ACCESSIONS  A35356; A36475; A48416; A36007; A23666; B35010

```

REFERENCE A35356
#authors Smith, C.A.; Davis, T.; Anderson, D.; Solam, L.; Beckmann, M.P.; Jerzy, R.; Dower, S.K.; Cosman, D.; Goodwin, R.G.
#journal Science (1990) 248:1019-1023
#title A receptor for tumor necrosis factor defines an unusual family of cellular and viral proteins.
#cross-references MUID:90260639
#accession A35356
##status preliminary
##molecule_type mRNA
##residues 1-461 ##label SMI
##cross-references GB:M32315

REFERENCE A36475
#authors Kohno, T.; Brewer, M.T.; Baker, S.L.; Schwartz, P.E.; King, M.W.; Hale, K.K.; Squires, C.H.; Thompson, R.C.; Vannice, J.L.
#journal Proc. Natl. Acad. Sci. U.S.A. (1990) 87:8331-8335
#title A second tumor necrosis factor receptor gene product can shed a naturally occurring tumor necrosis factor inhibitor.
#cross-references MUID:91045991
#accession A36475
##status preliminary
##molecule_type mRNA
##residues 1-195, 'R', 197-461 ##label KOH
##cross-references GB:M38549

REFERENCE A48416
#authors Dembic, Z.; Loetscher, H.; Gubler, U.; Pan, Y.C.; Lahm, H.W.; Gentz, R.; Brockhaus, M.; Lesslauer, W.
#journal Cytokine (1990) 2:231-237
#title Two human TNF receptors have similar extracellular, but distinct intracellular, domain sequences.
#cross-references MUID:91370690
#accession A48416
##status preliminary
##molecule_type mRNA; protein
##residues 23-461 ##label DEM
##cross-references NCBIN:63368; NCBIP:63371
##note sequence extracted from NCBI backbone

REFERENCE A36007
#authors Heller, R.A.; Song, K.; Onasch, M.A.; Fischer, W.H.; Chang, D.; Ringold, G.M.
#journal Proc. Natl. Acad. Sci. U.S.A. (1990) 87:6151-6155
#title Complementary DNA cloning of a receptor for tumor necrosis factor and demonstration of a shed form of the receptor.
#cross-references MUID:90349572
#accession A36007
##status preliminary
##molecule_type mRNA
##residues 116-140, 'P', 142-195, 'R', 197-362, 'T', 364-461 ##label HEL
##cross-references GB:M35857

REFERENCE A23666
#authors Loetscher, H.; Schlaeger, E.J.; Lahm, H.W.; Pan, Y.C.E.; Lesslauer, W.; Brockhaus, M.
#journal J. Biol. Chem. (1990) 265:20131-20138

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#title      Purification and partial amino acid sequence analysis of two
             distinct tumor necrosis factor receptors from HL60 cells.
#cross-references MUID:91056048
#accession   A23666
    ##status      preliminary
    ##molecule_type protein
    ##residues     23-40;65-69;136-141;300-306 ##label LOE
REFERENCE    A35010
#authors     Engelmann, H.; Novick, D.; Wallach, D.
#journal     J. Biol. Chem. (1990) 265:1531-1536
#title      Two tumor necrosis factor-binding proteins purified from
             human urine. Evidence for immunological cross-reactivity
             with cell surface tumor necrosis factor receptors.
#cross-references MUID:90110215
#accession   B35010
    ##status      preliminary
    ##molecule_type protein
    ##residues     27-31 ##label ENG
GENETICS
#gene        GDB:TNFR2
    ##cross-references GDB:G00-125-914
#map_position 1p36.2
CLASSIFICATION #superfamily tumor necrosis factor receptor type 2; NGF
               receptor repeat homology
KEYWORDS      duplication; receptor; transmembrane protein
FEATURE
  1-22        #domain signal sequence #status predicted #label SIG\
  23-416      #product tumor necrosis factor receptor type 2 #status
               experimental #label MAT\
  40-76       #domain NGF receptor repeat homology #label NG1\
  78-119      #domain NGF receptor repeat homology #label NG2\
  120-162     #domain NGF receptor repeat homology #label NG3\
  164-201     #domain NGF receptor repeat homology #label NG4\
  262-279     #domain transmembrane #status predicted #label TMN\
  280-461     #domain intracellular #status predicted #label INT\
  171,193     #binding_site carbohydrate (Asn) (covalent) #status
               predicted
SUMMARY       #length 461 #molecular-weight 48291 #checksum 5724

Query Match      13.6%; Score 398; DB 5; Length 461;
Best Local Similarity 43.8%; Pred. No. 2.13e-48;
Matches 63; Conservative 19; Mismatches 55; Indels 7; Gaps 6;

Db 45 yydqta-qmccskcspgqhakvfctktsdtvcdscedstytqlwnwvpeclscgsrccsd 103
   |::|: |: | ||:| | || | | | :| | ||: |: | || |:: |
Qy 31 YDEETSHQLLCDKCPPGTYLKQHCTAKWKTVCAPCPDHYTDSWHTSDECLYCSPVCKEL 90

Db 104 qvetqactreqnriectcrpgwycalskqegcrlcaplrkcrpgfgvarpgtetsdvckp 163
   | | | | :||:| |: |:| | | | | | | | | | |::| | : |||
Qy 91 QYVKQECNRTHNRVCECKEGRY--LEI-EFC-L-KH-RSCPPGFGVVQAGTPERTVCKR 144

Db 164 capgtfsnttsstdicrphqicnv 187
   |: | ||| ||| | | | |:|
Qy 145 CPDGGFFSNETSSKAPCRKHTNCSV 168

```

RESULT 2
 ENTRY B38634 #type complete
 TITLE tumor necrosis factor receptor type 2 precursor - mouse
 ORGANISM #formal_name Mus musculus #common_name house mouse
 DATE 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change
 26-Jan-1996
 ACCESSIONS B38634; A40254
 REFERENCE A38634
 #authors Lewis, M.; Tartaglia, L.A.; Lee, A.; Bennett, G.L.; Rice,
 G.C.; Wong, G.H.W.; Chen, E.Y.; Goeddel, D.V.
 #journal Proc. Natl. Acad. Sci. U.S.A. (1991) 88:2830-2834
 #title Cloning and expression of cDNAs for two distinct murine tumor
 necrosis factor receptors demonstrate one receptor is
 species specific.
 #cross-references MUID:91187885
 #accession B38634
 ##molecule_type mRNA
 ##residues 1-474 ##label LEW
 ##cross-references GB:M60469
 REFERENCE A40254
 #authors Goodwin, R.G.; Anderson, D.; Jerzy, R.; Davis, T.; Brannan,
 C.I.; Copeland, N.G.; Jenkins, N.A.; Smith, C.A.
 #journal Mol. Cell. Biol. (1991) 11:3020-3026
 #title Molecular cloning and expression of the type 1 and type 2
 murine receptors for tumor necrosis factor.
 #cross-references MUID:91246168
 #accession A40254
 ##molecule_type mRNA
 ##residues 1-474 ##label GOO
 ##cross-references GB:M60469
 CLASSIFICATION #superfamily tumor necrosis factor receptor type 2; NGF
 receptor repeat homology
 FEATURE
 1-22 #domain signal sequence #status predicted #label SIG\
 23-474 #product tumor necrosis factor receptor type 2 #label
 MAT\
 40-77 #domain NGF receptor repeat homology #label NG1\
 166-203 #domain NGF receptor repeat homology #label NG4
 SUMMARY #length 474 #molecular-weight 50319 #checksum 7767

Query Match 12.8%; Score 375; DB 5; Length 474;
 Best Local Similarity 41.5%; Pred. No. 2.54e-44;
 Matches 66; Conservative 21; Mismatches 61; Indels 11; Gaps 7;

Db 52 qmccakcpggqyvkhfcnktsdtvcadceasmytqvwnqfirtclscsssccttdqveirac 111
 |:| ||||| |:|:| ||||| ||:|: ||||:| |:|
 Qy 38 QLLCDKCPPGTYLKQHCTAKWKTVCAPCPDHYTDSWHTSDECLYCSPVCKELQYVKQEC 97
 Db 112 tkqgnrvceagrycalkthsgscrqcmrlskcpgfgvassrapngnvlckacapgtf 171
 ::||||| ||| | | | ||||| :|:|:| :|||:| |
 Qy 98 NRTHNRVCECKEGRY--LEIEF--CLKH-R-S-CPPGFGVVQAGTPERNTVCKRCPDGFF 150
 Db 172 sdttsstdvcrphricsi--laip--gnastdavcapes 206

QY 151 SNETSSKAPCRKHTNCSVFGLLLTQKGNATHDNICSGNS 189